

The sediment obtained by these methods is more abundant, and can be fixed to the slide more easily than that which is deposited by antiformin. Tubercle bacilli were found by these methods 21 times in 300 examinations, in which they would otherwise have escaped detection.

#### DETECTION OF TYPHOID BACILLUS IN WATER

A method is reported (Lenke: *Deutsch Med. Woch.*, Sept., 1911; p. 1698) based on the fact that the bacilli are inhibited to a less degree by a strongly saline fluid than are water bacteria. Add 3-5% sodium chloride to peptone broth of + 10 to + 25 acidity to phenolphthalein. He prepares a watery solution of malachite green Merck Ia, 1 in 120: 0.2 cc., 0.3, 0.5, 0.7, 1.0, 1.4 cc. of this are mixed with quantities of 100 cc. of the salt broth. 15 cc. of each are placed in tubes, which are then inoculated with the suspected water. He has recovered the typhoid bacillus in 60 experiments after artificially contaminating the water,—in one instance when only 2 typhoid germs were introduced.

#### BUTTERFLY SCALES

B. Braman of the N. Y. Micros. Soc. proposed the following excellent method in 1881:

Dissolve 1 part of Anthony's "French Diamond Varnish" in 2 parts pure benzole. Apply a drop or two of the solution to a slide. In a few seconds, or as soon as varnish has set, press the wing of the moth or butterfly gently upon the slide and then carefully lift it away. The transfer of the scales shows a beautiful natural arrangement on the wing. Make a shallow cell around and apply cover. Canada balsam must not be used, as it disarranges the object.

#### CINNAMON OIL FOR EXAMINING ROUGH MINERALS FOR INCLUSIONS, FLAWS, ETC.

By applying a few drops of the oil to the surface of a transparent mineral, it is possible to examine the interior for inclusions, flaws, etc., without grinding the surface flat. Sand can also be examined for inclusions under the microscope.

#### ARRANGING AND MOUNTING SCALES OF INSECTS AND DIATOMS, ETC.

Use liquid gelatin thinned with an equal volume of 50% acetic